

WHAT IS CLAIMED IS:

1. A cooling system for cooling first and second heat-generating members disposed in a closed space, the first and second heat-generating members generate heat while being operated, the cooling system comprising:

a refrigerator that is disposed to absorb heat from the first and second heat-generating members and is operated using the absorbed heat; and

a cold storage unit that stores cold produced in the refrigerator.

2. The cooling system according to claim 1, wherein:

the refrigerator includes an adsorption unit having an adsorbent for adsorbing gas refrigerant, the refrigerant adsorbed in the adsorbent being removed from the adsorbent when being heated;

the adsorption unit is disposed to alternately repeat an adsorbing mode where the adsorbent adsorbs gas refrigerant to obtain cooling capacity, and a desorbing mode where the adsorbed refrigerant is removed from the adsorbent; and

the cold storage unit is disposed to cool the second heat-generating member in both the adsorbing mode and the desorbing mode.

3. The cooling system according to claim 2, wherein:

in the adsorbing mode, liquid refrigerant in the adsorption unit is supplied to the cold storage unit, and the

cold storage unit stores the cold by liquid refrigerant supplied from the adsorption unit.

4. The cooling system according to claim 3, further comprising

a condenser, disposed in the adsorption unit, for cooling and condensing refrigerant removed from the adsorbent in the desorbing mode, wherein:

liquid refrigerant within the adsorption unit is supplied to the cold storage unit for a predetermined time after a start of the desorbing mode, so that a liquid surface in the adsorption unit is decreased.

5. The cooling system according to claim 3, further comprising

a condenser, disposed in the adsorption unit, for cooling and condensing refrigerant removed from the adsorbent in the desorbing mode, wherein:

the condenser is disposed at a position higher than a liquid surface in the adsorption unit.

6. The cooling system according to claim 1, further comprising

first and second tanks that are disposed to store a fluid through which heat absorbed from the first heat-generating member supplies to the refrigerator, wherein:

the first and second tanks are arranged such that the

fluid before being heated in the first heat-generating member is stored in the first tank, and the fluid after being heated in the first heat-generating member is stored in the second tank; and

in a fluid circulation mode, a flow amount of the fluid supplied from the second tank to the refrigerator is made larger than that of the fluid supplied from the first tank to the first heat-generating member.

7. The cooling system according to claim 6, further comprising:

a first pump that controls the flow amount of the fluid flowing from the first tank; and

a second pump that controls the flow amount of the fluid flowing from the second tank.

8. The cooling system according to claim 6, further comprising

a facilitating member for facilitating heat exchange between the fluid in the second tank and air.

9. The cooling system according to claim 1, further comprising

first and second tanks that are disposed to store a fluid through which heat absorbed from the first heat-generating member supplies to the refrigerator, wherein:

the first and second tanks are arranged such that the

fluid before being heated in the first heat-generating member is stored in the first tank, and the fluid after being heated in the first heat-generating member is stored in the second tank; and

at least in the desorbing mode, a flow amount of the fluid supplied from the second tank to the refrigerator is made larger than that of the fluid supplied from the first tank to the first heat-generating member.

10. The cooling system according to claim 9, further comprising:

a first pump that controls the flow amount of the fluid flowing from the first tank; and

a second pump that controls the flow amount of the fluid flowing from the second tank.

11. The cooling system according to claim 9, further comprising

a facilitating member for facilitating heat exchange between the fluid in the second tank and air.

12. The cooling system according to claim 1, wherein:

the refrigerator includes an adsorption unit for performing heat exchange of a refrigerant, wherein:

the adsorption unit includes an adsorption core having therein an adsorbent that has a refrigerant-adsorbing capacity decreasing as temperature of the adsorbent decreases, and a

condensation core for condensing the refrigerant removed from the adsorbent;

the adsorption unit is disposed to alternatively repeat an adsorbing mode where the adsorbent adsorbs gas refrigerant to obtain a cooling capacity, and a desorbing mode where the adsorbed refrigerant is removed from the adsorbent and is condensed in the condensation core; and

the cold storage unit is coupled to the condensation core of the adsorption unit such that cold produced in refrigerant condensation in the condensation core is stored in the cold storage unit.

13. The cooling system according to claim 12, further comprising

a heat exchanger for cooling the adsorbent in the adsorption core in the adsorbing mode.

14. The cooling system according to claim 12, wherein:

in the adsorbing mode, liquid refrigerant in the adsorption unit is supplied to the cold storage unit, and the cold storage unit stores the liquid refrigerant supplied from the adsorption unit.

15. The cooling system according to claim 12, wherein:

the cold storage unit is disposed to cool the second heat-generating member in both the adsorbing mode and desorbing mode.

16. The cooling system according to claim 15, further comprising

first and second tanks that are disposed to store a fluid through which heat absorbed from the first heat-generating member supplies to the adsorption unit, wherein:

the first and second tanks are arranged such that the fluid before being heated in the first heat-generating member is stored in the first tank, and the fluid after being heated in the first heat-generating member is stored in the second tank.

17. The cooling system according to claim 16, wherein:

at least in the desorbing mode, a flow amount of the fluid supplied from the second tank to the adsorption unit is made larger than that of the fluid supplied from the first tank to the first heat-generating member.

18. The cooling system according to claim 16, wherein:

the adsorption unit is coupled to the first and second tanks such that the fluid flows between the adsorption unit and the first and second tanks.